

**Claims:**

1. A method of buffering packets, comprising:  
receiving a plurality of packets; and  
storing said plurality of packets into a buffer in accordance with at least a timestamp or a sequence number of each of said packets such that at least one placeholder is inserted between two adjacent packets having non-successive timestamps or sequence numbers.
2. The method of claim 1, wherein said buffer is implemented as a sliding window capable of being adjusted in size.
3. The method of claim 2, wherein said size of said sliding window is adjusted in accordance to a change in network condition.
4. The method of claim 2, wherein said size of said sliding window is adjusted in accordance to a predefined quality of service.
5. The method of claim 2, wherein said size of said sliding window is defined as a capacity for storing packets in accordance with a maximum network delay for said packets.
6. A method of buffering frames, comprising:  
receiving a plurality of encoded frames;  
storing said plurality of encoded frames into a buffer; and  
deleting selectively one or more of said stored plurality of encoded frames.
7. The method of claim 6, wherein said selective deleting is performed in accordance to needing to reduce the decoder's CPU resource requirements because the requirements cannot be met by the current processor system configuration.

8. The method of claim 6, wherein said selective deleting is performed in accordance to a predefined quality of service.
9. The method of claim 6, wherein a bi-directionally predictive-coded frame from said plurality of encoded frames will be deleted first before an intra coded frame or a predictive-coded frame.
10. The method of claim 9, wherein a predictive-coded frame from said plurality of encoded frames will be deleted first before an intra coded frame.
11. A method of buffering frames, comprising:
  - receiving a plurality of decoded frames;
  - storing said plurality of decoded frames into a buffer; and
  - providing said decoded frames to a media renderer in a real time application.
12. The method of claim 11, wherein the buffer containing the decoded frames facilitates at least one QoS requirement.
13. The method of claim 11, wherein said real time application is a streaming media application.
14. A method of scheduling of rendered content, comprising:
  - buffering a plurality of packets;
  - assembling said plurality of packets into a plurality of encoded frames;
  - buffering said plurality of encoded frames;
  - decoding a portion of said plurality of encoded frames into a plurality of decoded frames; and
  - buffering said plurality of decoded frames.
15. The method of claim 14, further comprising:
  - forwarding said plurality of decoded frames to a rendering system.

16. The method of claim 14, wherein said buffering a plurality of packets comprises storing said plurality of packets into a buffer in accordance with at least a timestamp or a sequence number of each of said packets such that at least one placeholder is inserted between two adjacent packets having non-successive timestamps or sequence numbers.

17. The method of claim 14, wherein said buffering said plurality of encoded frames comprises:

- storing said plurality of encoded frames into a buffer; and
- deleting selectively one or more of said stored plurality of encoded frames.

18. The method of claim 14, wherein said buffering said plurality of decoded frames comprises:

- storing said plurality of decoded frames into a buffer; and
- providing said decoded frames to a media renderer in a real time application.

19. The method of claim 14, where at least one of said buffering step is adjusted in accordance to a predefined quality of service.

20. The method of claim 14, where at least one of said buffering step is adjusted in accordance to a change in network condition.

21. An apparatus for scheduling of rendered content, comprising:

- a first buffer for buffering a plurality of packets;
- a second buffer for buffering a plurality of encoded frames, where said plurality of encoded frames are assembling from said plurality of packets;
- a decoder for decoding a portion of said plurality of encoded frames into a plurality of decoded frames; and
- a third buffer for buffering said plurality of decoded frames.

22. The apparatus of claim 21, further comprising:  
a rendering system for receiving said plurality of decoded frames to a rendering system.
23. The apparatus of claim 21, wherein said buffering a plurality of packets comprises storing said plurality of packets into said first buffer in accordance with at least a timestamp or a sequence number of each of said packets such that at least one placeholder is inserted between two adjacent packets having non-successive timestamps or sequence numbers.
24. The apparatus of claim 21, further comprising means for deleting selectively one or more of said stored plurality of encoded frames.
25. The apparatus of claim 22, wherein said decoded frames are provided to said rendering system in a real time application.
26. The apparatus of claim 21, where at least one of said buffering is adjusted in accordance to a predefined quality of service.
27. The apparatus of claim 21, where at least one of said buffering is adjusted in accordance to a change in network condition.
28. A computer readable carrier including program instructions that instruct a computer to perform a method of:  
receiving a plurality of packets; and  
storing said plurality of packets into a buffer in accordance with at least a timestamp or a sequence number of each of said packets such that at least one placeholder is inserted between two adjacent packets having non-successive timestamps or sequence numbers.
29. A computer readable carrier including program instructions that instruct a computer to perform a method of:  
receiving a plurality of encoded frames;

storing said plurality of encoded frames into a buffer; and  
deleting selectively one or more of said stored plurality of encoded frames.

30. A computer readable carrier including program instructions that instruct a computer to perform a method of:

buffering a plurality of packets;  
assembling said plurality of packets into a plurality of encoded frames;  
buffering said plurality of encoded frames;  
decoding a portion of said plurality of encoded frames into a plurality of decoded frames; and  
buffering said plurality of decoded frames.